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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,147	12/11/2003	Reji Paul Wilson	DN2002133P01	7384

27280 7590 01/27/2005

THE GOODYEAR TIRE & RUBBER COMPANY  
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EXAMINER

BRINSON, PATRICK F

ART UNIT PAPER NUMBER

3754

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/733,147

Applicant(s)

WILSON ET AL.

Examiner

Patrick F. Brinson

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6, 7 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,076,329 to **Brunnhofer** in view of US 5,476,121 to **Yoshikawa et al.**

The patent to **Brunnhofer** discloses a multi-layer fuel hose including an inner barrier layer (3 and 4), a radially outer intermediate layer (2) bonded directly onto the inner layer, and a cover layer (1), wherein the barrier layer is formed of at least two resin layers formed of two different materials and at least one of the resin layers formed of a vinyl resin. The barrier layer is the innermost layer of the hose, as recited in claim 3. One of the inner layers (3) is a vinyl alcohol/ethylene copolymer (EVOH), as recited in claim 6 and the non-vinyl resin barrier layer (4) is a polyamide thermoplastic layer, as recited in claim 7. Each resin layer in the barrier layer has a radial thickness of 0.1-0.3 mm, which is within the recited 0.025 to 0.127 mm ranges recited in claims 10 and 11.

**Brunnhofer** discloses the recited structure with the exception of disclosing a reinforcing layer or having the intermediate layer formed of a rubber material. The patent to **Yoshikawa et al.** disclosed a fuel transporting hose as well including a multi layer barrier layer (1 and 2), having a vinyl resin layer (1), an intermediate layer (4) formed of a rubber material, and a reinforcing layer (5). The reinforcing layer enhances the strength of the hose. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide to the hose of **Brunnhofer** a reinforcing layer (5), as suggested by **Yoshikawa et al.** wherein it is known in the art to provide reinforcing means in order to improve the strength of the hose. Additionally, the **Yoshikawa et al.** reference discloses the intermediate layer formed of a rubber material, including butyl rubbers and EPDM. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute for the intermediate layer of **Brunnhofer** an intermediate layer formed of rubber, also as suggested by **Yoshikawa et al.** in order to provide flexibility to the hose.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Brunnhofer** in view of **Yoshikawa et al.** as applied to claim 1 above, and further in view of US 6,068,026 to **Garois**.

The patent to **Brunnhofer**, as modified, does not disclose an elastomeric layer radially inward of the inner barrier layer. The patent to **Garois** discloses a refrigerant hose including an inner layer (10), an intermediate layer (12), reinforcement layer (14) and outer cover layer (16). Within the inner barrier layer is a thin layer of elastomer (18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide to the hose of **Brunnhofer**, as modified, an elastomeric layer within the barrier layer, as suggested by **Garois** in order to improve sealing when the pipe is mounted on a connection end piece or the like.

#### ***Response to Amendment***

In response to Applicant's arguments that **Wilson et al.** does not disclose a vinyl resin layer, it should be noted that **Brunnhofer** does disclose a multilayer barrier including a vinyl resin and a non-vinyl resin. The **Yoshikawa** reference teaches the use of a reinforced layer and the use of a rubber as the intermediate layer.


#### ***Allowable Subject Matter***

3. Claims 4, 5, 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Y. Mar** can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Patrick F. Brinson  
Primary Examiner  
Art Unit 3754

P. F. Brinson  
January 24, 2005